



State of Alaska

Department of Natural Resources

Division of Geological & Geophysical Surveys

Progress Report: Systematic Approach to Assessing the Vulnerability of Alaska's Coastal Infrastructure to Erosion

Date: April 30, 2020

Period of Reporting: January 1-March 31, 2020

Submitted to: Denali Commission

Objectives and Milestones

Objectives	Year 1			
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
Project kickoff, account setup at State of Alaska, and staff hiring		X		
Establish data agreements for infrastructure file datasets			X	X
Provide initial assessment at pilot sites (Locations: Alakanuk and Kipnuk)				X
	Year 2			
	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
Publish initial shoreline change assessment as DGGs report of investigations	X	X		
Provide draft final product to Denali Commission and designated stakeholders for feedback (Locations: Nunam Iqua and Kotlik)	X			
Project shorelines and build infrastructure projection geodatabases and map products	X	X	X	X

(2000) character limit

Infrastructure files received in the last reporting period were converted into the ArcGIS format. In the ArcGIS format, the files can be incorporated into the shoreline projection model. The model was also finalized in ArcGIS (using python scripting for analysis at multiple communities) and named the Infrastructure Management Planning Assistance for Coastal Towns (IMPACT) model. The IMPACT model was tested on two communities with very different shorelines and rates of change (i.e. Nunam Iqua and Kotlik). Example maps, a summary table, and metadata were distributed to project partners in the Denali Commission and ANTHC for review. We received a detailed review of the products, with suggestions on editing and content to utilize as DGGs develops maps for all communities.

The shoreline change report advanced in the DGGs review process, however, not as quickly as anticipated. The report is not yet published, but receiving peer reviews, the timeline has been delayed to an expected publication date in the next quarter. The maps within the report, however, are being provided in draft form upon request for extenuating circumstances, including grant proposals and community decision making meetings.

Moving forward, DGGs will work on running the IMPACT model at additional communities and finalizing publication products, including two projection maps, a summary table, and metadata (for each community). In response to COVID-19, DGGs is delaying all field travel to rural communities. These delays are resulting in DGGs staff spending additional time in the office, which may speed up progress on this project.

Budget Summary

No changes. On track.

Expenditures:

Total this quarter \$25,254.16

Den. Com. \$22,729.79

Match \$2,524.27